



JPRS Report

Telecommunications

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CONTENTS

7 January 1991

SUB-SAHARAN AFRICA

IVORY COAST

Cabinet Endorses New Appointments for National TV [Abidjan Domestic Service, 12 Dec 90] 1

NIGERIA

Satellite Dishes To Monitor Foreign Broadcasts 'Illegal' [Dakar PANA, 15 Dec 90] 1
Plans To Restore Abuja Communications Facility [Dakar PANA, 15 Dec 90] 1
Minister on Illegal Use of Satellite Transmissions [Lagos Domestic Service, 27 Dec 90] 1

SOUTH AFRICA

Internal Affairs Minister Discusses Criteria for M-Net Programming License
[Johannesburg Television Service, 19 Dec 90] 1

ZIMBABWE

ZBC To Upgrade Transmitter Facilities in 1991 [Dakar PANA, 21 Dec 90] 2

CHINA

Development of Microwave Communications Service Viewed
[Harbin Heilongjiang Provincial Service, 3 Jan 91] 3
CCTV International Ground Satellite Station Operating Well [Beijing XINHUA, 14 Dec 90] 3
Portable Satellite TV Earth Station on International Market
[Huang Jiwei; Beijing ZHONGGUO DIANZI BAO, 18 Nov 90] 3
Telephone System Enhances XINHUA Telecommunications [Beijing XINHUA, 20 Dec 90] 3
Jilin Microwave Communications Development Reported
[Changchun Jilin Provincial Service, 28 Dec 90] 4
Liaoning Vice Governor Views Communications Facilities
[Shenyang Liaoning Provincial Service, 15 Dec 90] 4

EAST ASIA

REGIONAL AFFAIRS

Further on Lucky-Goldstar Contract With Pakistan
[Seoul THE KOREA ECONOMIC JOURNAL, 17 Dec 90] 5
Korea To Help Modernize Indonesian Communications Services
[Seoul THE KOREA HERALD, 27 Dec 90] 5
Indonesia, Thai Company Sign Tranponder Rent Agreement
[Jakarta Domestic Service, 13 Dec 90] 5

INDONESIA

Educational TV Programs to Start in January [Jakarta THE JAKARTA POST, 12 Dec 90] 6

JAPAN

KDD Plans Aircraft-Ground Communications Service 6
Better Quality Communication [Tokyo KYODO, 13 Dec 90] 6
Service to Foreign Aircraft [Tokyo KYODO, 18 Dec 90] 6

JC-SAT To Service Cable Television Networks [Tokyo KYODO, 27 Dec 90]	6
Sumitomo To Buy Stake in Satellite Broadcasting Firm [Tokyo KYODO, 21 Dec 90]	7
SOUTH KOREA	
Paper Reports Government To Allow N. Korean TV, Radio	7
Foundation for Cooperation [Seoul KYONGHYANG SINMUN, 4 Jan 91]	7
Government Denies Opening of North TV, Radio [Seoul Domestic Service, 4 Jan 91]	8
Communications Ministry Allows Opening of VAN Service [Seoul YONHAP, 28 Dec 90]	8
LAOS	
UNDP-Financed Telecommunications Program Signed [Vientiane KPL, 18 Dec 90]	9
MALAYSIA	
Seven FM Transmitting Stations To Be Operational in 1991	
[Kuala Lumpur International Service, 23 Dec 90]	9
Malaysia Launches Large-Scale Investment Program	
[Chichester INTERNATIONAL TELECOMMUNICATIONS INTELLIGENCE, 8 Oct 90]	9
TAIWAN	
Premier Approves Satellite Development Plan [Taipei Domestic Service, 20 Dec 90]	9
THAILAND	
Optical Fiber Submarine Cable Network Begun [Bangkok Domestic Service, 14 Dec 90]	10
Firm Launches Thai-Language Cable TV [Bangkok BANGKOK POST, 28 Dec 90]	10
VIETNAM	
Radio-Television Transmission Output Increased [Hanoi Domestic Service, 13 Dec 90]	11
Television Relay Station Set Up in Cao Bang [Hanoi Domestic Service, 20 Dec 90]	11
EAST EUROPE	
CZECHOSLOVAKIA	
Governments Reach Compromise on Federal Television	
[Jozef Miklosko interview; Prague MLADA FRONTA DNES, 11 Dec 90]	12
LATIN AMERICA	
ARGENTINA	
Three State Radio Stations Sold to Private Sector [Buenos Aires DYN, 17 Dec 90]	13
PARAGUAY	
New Telecommunications Administration Chairman Named	
[Asuncion ULTIMA HORA, 27 Dec 90]	13
NEAR EAST & SOUTH ASIA	
REGIONAL AFFAIRS	
Arab Radio, Television Federation Meeting Opens in Cairo	
[Cairo Domestic Service, 18 Dec 90]	14

EGYPT

Radio Kuwait To Broadcast From Cairo as of 1 January [Cairo MENA, 29 Dec 90] 14

INDIA

Satellite Equipment Fabricated in Ahmedabad [Delhi Domestic Service, 24 Dec 90] 14
MMW Technology for Use in Missile Warheads, Wide Band Communication
[Delhi Domestic Service, 18 Dec 90] 15

ISRAEL

Agreement Signed With French Satellite Company [Jerusalem Domestic Service, 13 Dec 90] 15
Communications Agreement Signed With Romania
[Judy Siegel; Jerusalem THE JERUSALEM POST, 18 Dec 90] 15
Activists in Territories Using Ham Radios for Communication
[Hayim Broida, Roni Shaqed; Tel Aviv YEDI'OT AHARONOT, 3 Jan 91] 15

SOVIET UNION

'Raduga' Communications Satellites Launched 16
'Raduga' Launched 20 Dec [Moscow TASS International Service, 21 Dec 90] 16
'Raduga-1' Launched 27 Dec [Moscow TASS International Service, 28 Dec 90] 16
Murmansk-Norway Direct Phone Link Commissioned [Moscow Domestic Service, 27 Dec 90] 16
Central Caucasus TV Transmitter Commissioned [Moscow Domestic Service, 27 Dec 90] 16
Joint Stock Television Begins Operating in Omsk [Moscow Domestic Service, 16 Dec 90] 16
Kazakhstan TV To Begin Satellite Transmissions [Moscow TASS, 29 Dec 90] 16
Independent Radio Station Begins Broadcasts in Chita [Moscow Television Service, 13 Dec 90] 16
New Leningrad TV Company To Begin Transmission [Moscow Domestic Service, 30 Dec 90] 17
Odessa Commercial Television Channel Opens [Kiev International Service, 18 Dec 90] 17
Odessa Region to Receive CNN Via Satellite [Kiev International Service, 27 Dec 90] 17
Belorussian Town of Mozyr Gets Cable Television [Moscow Domestic Service, 20 Dec 90] 17

WEST EUROPE

REGIONAL AFFAIRS

D2-Mac on Shaky Ground as European HDTV Standard
[Frankfurt/Main FRANKFURTER ZEITUNG/BLICK DURCH DIE WIRTSCHAFT,
30 Oct 90] 18
Europesat Program for Future TV Satellite [Blandine Hennion; Paris LES ECHOS, 27 Nov 90] ... 18
Video-Telephone Project To Challenge Japanese
[Yann Le Gales; Paris LE FIGARO, 22 Nov 90] 19
Eureka Audiovisual Plans Announced [Nicole Vulser; Paris LES ECHOS, 27 Nov 90] 20
Turkey, France Sign Commercial Satellite Agreement [Ankara ANATOLIA, 22 Dec 90] 21

CANADA

EG GATT Proposal Viewed as Affecting Two BCE Units
[Lawrence Surtees; Toronto THE GLOBE AND MAIL, 27 Nov 90] 21
Consortium To Build Armed Forces New Communication System
[Dominique Lacasse; Ottawa THE OTTAWA CITIZEN, 31 Oct 90] 22

FRANCE

France Telecom, International Telecom Japan Sign Accord [Paris AFP SCIENCES, 28 Oct 90] ... 23
Post, Telecommunications Budget Approved [Pierre Servent; Paris LE MONDE, 14 Nov 90] 23

GERMANY

Satellite Channel Begins Teletext Service [Hamburg DPA, 19 Dec 90] 24

Deutschlandfunk Complains of 'Frequency Piracy' by SWF	<i>[Berlin ADN, 19 Dec 90]</i>	24
East German Television Ends Broadcasting Operations		
	<i>[Berlin Deutschlandsender-Kultur, 15 Dec 90]</i>	24
ARD Programs To Be Aired in Whole Germany From 15 Dec		
	<i>[Ralph Kotsch; Berlin BERLINER ZEITUNG, 12 Dec 90]</i>	24

SPAIN

Deputies Approve Municipal Radio Stations Law	<i>[Madrid Domestic Service, 13 Dec 90]</i>	25
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INTERNATIONAL

Undersea Communication Cable Begins Operating 24 Dec		
	<i>[Judy Siegel; Jerusalem THE JERUSALEM POST, 24 Dec 90]</i>	26

IVORY COAST

Cabinet Endorses New Appointments for National TV

AB1412172090 Abidjan Domestic Service in French
1930 GMT 12 Dec 90

[Excerpts] The Cabinet met on 12 December from 0900 to 1100 GMT under the chairmanship of His Excellency Mr. Felix Houphouet-Boigny, head of state. [passage omitted]

For the Ministry of Communications, upon the recommendation of Mr. Auguste Miremont, the cabinet endorsed the appointment of:

Mr. Ali Coulibaly, principal editing secretary, grade 1, to the post of central director of Ivorian Television;

Mr. Imboua Degny Maixent, first editing secretary, class II, grade 3, to the post of director of televised information. [passage omitted]

NIGERIA

Satellite Dishes To Monitor Foreign Broadcasts 'Illegal'

AB1512133290 Dakar PANA in English 1317 GMT
15 Dec 90

[Text] Lagos, 15 Dec (NAN/PANA)—The Nigerian minister of information, Chief Alex Akinyele, has declared illegal all satellite dishes for monitoring foreign broadcasts outside those owned by the Nigerian Television Authority (NTA). Answering questions from newsmen at a ministerial briefing in Lagos on Friday, he said the issue was seriously considered at the last meeting of the National Council on Information (NCI) in Lagos two months ago.

The minister noted that the proliferation of such dishes posed a great challenge to the nation's cultural development, adding that the youths were being infested with a lot of cultural alienation. Chief Akinyele disclosed that the Federal Government was studying the situation and would soon make a policy statement on the issue. On private ownership of broadcasting organization in the country, he explained that licences would be granted as soon as government deemed it fit to do so.

Plans To Restore Abuja Communications Facility

AB1512130690 Dakar PANA in English 1247 GMT
15 Dec 90

[Text] Lagos, 15 Dec (NAN/PANA)—The Nigerian Government has provided funds for the rehabilitation of the Abuja Domsat Station in readiness for the OAU Summit in June 1991 and the subsequent movement of the Presidency to the new federal capital. Revealing this in Lagos Friday, the Nigerian information minister, Chief Alex Akinyele, said the Lagos [words indistinct]

also being rehabilitated to improve the country's reception and transmission capacity.

Meanwhile, the minister appealed to subscribers of the NEWS AGENCY OF NIGERIA (NAN) to pay their debts estimated at more than two million naira (about 285,825 US dollars) and to stop regarding the agency as a social service. The minister commended the performance of the agency which had earned for itself a reputation as an authoritative, credible and reliable medium of news from and about the country.

He said NAN, which had 38 rural offices, had contributed greatly in redressing the imbalance in the flow of news from the rural areas to the urban centres in Nigeria while its foreign offices, in Harare, New York, and London, had contributed immensely to the drive for a new information order. He commended the agency for commissioning the first phase of its computerisation in the face of obsolete and malfunctioning telecommunications system and inadequate funding. The Nigerian agency, together with those of Mozambique, Senegal, Tanzania and Zambia are in the process of being computerised as part of the step by step modernisation of the communication network of the PAN AFRICAN NEWS AGENCY (PANA).

Minister on Illegal Use of Satellite Transmissions

AB2812220690 Lagos Domestic Service in English
0600 GMT 27 Dec 90

[Excerpt] Television stations in Nigeria have been reminded of the need to uphold international copyright laws by not transmitting television signals illogically [as heard] recorded from satellite. Throwing more light on the issues of satellite dishes during a press conference in Lagos last night, the minister of information, Chief Alex Akinyele, explained that there were prescribed fees for manufacturers and users. He recalled that the National Council of Information at its 15th meeting in Lagos last month suggested that satellite news and entertainment (?properly) recorded by television stations should be edited to remove unsuitable materials.

Chief Akinyele reminded the media of the very important role they have to play in mobilizing the people for the next phase of the transition to civil rule program. He called on them to positively enlighten the people on various issues involved so that they could contribute more to the evolution of a better society. [passage omitted]

SOUTH AFRICA

Internal Affairs Minister Discusses Criteria for M-Net Programming License

MB1912205090 Johannesburg Television Service
in Afrikaans 1800 GMT 19 Dec 90

[Text] The minister of internal affairs, Mr. Gene Louw, says the new M-Net license is a big step ahead and the

healthy competition that will result between the SABC [South African Broadcasting Corporation] and M-Net will only lead to better television services in South Africa. Mr. Louw said in a statement in Pretoria that commentary in the media and views on this issue that is not in accordance with reality, demands that the issue be placed in perspective.

He said that the granting of the M-Net license is almost totally the result of the options found most suitable for M-Net and the SABC following negotiations, chiefly between the necessary heads of the executive committees of these organizations. He said commentary by a spokesman for M-Net, that it will be difficult for M-Net to manage an economically viable news service because of the stern limitations imposed on them, places incorrect emphasis on the decision to grant M-Net a license to broadcast news during encoded time. He said without the limitation, competition in direct news broadcasting in the specified time slots of 5PM [1500 GMT] to 9PM [1900 GMT] in the evening, emphasis is placed on the sensational and this should be avoided at all costs.

On the specification that at least 40 percent of the news or actuality programs should be broadcasted in one of the country's official languages over a period of one month, Mr. Louw said that it is in accordance with the limitations placed on the SABC. With reference to the ruling that M-Net should broadcast specified news or informative items of national interest, free of charge on request, Mr. Louw said that this ruling is the result of negotiations and agreements between the two broadcasters. It will however, be used sparingly and with discretion, only if national interest absolutely demands it. The public will, however, be able to judge whether this is the case.

As concerns the ruling on sports issues, Mr. Louw said that this is also as a result of an agreement between the broadcasters and it enjoyed the support of both parties. He said M-Net reserves the right to compete for broadcasting rights and to sponsor sporting events. Exclusive rights to M-Net that will result in limited services to the public is not acceptable if the majority of the public cannot be served by M-Net or if it can only be served by the SABC at a later stage. He said that it is important for the nationwide license holders of the SABC not to be denied access to sporting events, both national and international, at the cost of the 500,000 subscribers to M-Net. The ruling is also more economical because it will eliminate unnecessary bidding for the right to broadcast certain sporting events.

Mr. Louw further said that those who believe that the existing ruling forces M-Net to deliver 12 million rands worth of local programs, and that this amount will be included annually, are on the wrong track. Mr. Louw said the government welcomes healthy competition even if it results, in this case, in the reduction of advertising revenue in an institution such as the SABC. In this regard it will be unfair not to extend a permissible measure of protection to the SABC as national broadcaster. He said that the SABC carries several important messages free of charge on television and radio. In order to deliver the most extensive, cost effective broadcasting services to the public, revenue from certain programs is used to carry other programs. Mr. Louw said that if the balance is disturbed then it will be counter-productive to the existing services and it will have a negative effect on the service to the public. He further said that the SABC is running important television and radio channels at a loss, but in order to provide a service to the public it is subsidized by the profitable channels. For this the SABC does not receive a subsidy from the government while M-Net only manages one television channel.

Mr. Louw said that at all times attempts should be made not to place the SABC in such a financial position where existing license fees are drastically increased. Mr. Louw said he believes that the allocations to M-Net were decided upon responsibly and that all circumstances were taken into account.

ZIMBABWE

ZBC To Upgrade Transmitter Facilities in 1991

*MB2112195790 Dakar PANA in English 1820 GMT
21 Dec 90*

[Text] Harare, 21 Dec. (ZIANA/PANA)—Zimbabwe Broadcasting Corporation's (ZBC) Director General John Tsimba Friday said there would be a great improvement in 1991 in the installation of transmitters for better reception by both television viewers and radio listeners in the country.

Addressing the corporation's workers at their Christmas party, the ZBC chief said the transmitter upgrading and installation was a mammoth task but plans were in the offing to revamp a number of existing stations which he said were currently under-provided.

Tsimba took the occasion to announce a two bonus scheme next year in appreciation of business generated by advertisers, saying the concessions were designed to help the advertisers stretch their dollar furthest.

Development of Microwave Communications Service Viewed

SK0401105791 Harbin Heilongjiang Provincial in Mandarin 1000 GMT 3 Jan 91

[Summary] During the Seventh Five-Year Plan period, construction of microwave communications facilities developed rapidly in Heilongjiang Province. Thus far, some 2,000 long-distance microwave circuits have been made available throughout the province, accounting for more than 50 percent of the province's total number of long-distance telephone lines.

In 1986, the province began building its northeast microwave communications network covering six prefectures and cities. Two years later, the province completed building 20 microwave stations, and opened 1,800 unmanned imported microwave communications facilities, thus basically relieving the burden on the long-distance communications service in Mudanjiang, Jiamusi, Hegang, Shuangyashan, Jixi, and Qitaihe. As of 1988, the province's microwave communications network had developed from four microwave stations and 160 km of communications lines to 30 microwave stations and 1,500 km of communications lines.

In 1989, cadres and workers of the provincial microwave communications headquarters independently designed, inspected, and began installing the northwest microwave communications network. Thus far, the province has already completed the tasks of surveying, designing, and building water, power, and road facilities, and installing water towers and earthen construction for this microwave line which will cover a total length of 1,500 km, over 25 cities and counties, and will encompass 51 microwave stations.

In addition, construction of the Harbin ground communications satellite station began last year. This station will be able to utilize the international communications satellite at 66 degrees E above the Indian Ocean to carry out communications with Beijing, Shanghai, Guangzhou, Urumqi, and Hohhot. By the end of this year, construction of the province's northwest microwave network and the Harbin ground communications satellite station will be completed. At that time, the province will have 80 microwave stations and 3,000 km of microwave lines, and will give rise to a microwave communications satellite network which will be centered in Harbin, will spread all over the province, and will be linked with the rest of the country.

CCTV International Ground Satellite Station Operating Well

OW1412091490 Beijing XINHUA in English 0836 GMT 14 Dec 90

[Text] Beijing, December 14 (XINHUA)—The China Central Television (CCTV) international ground satellite station operates well, the "PEOPLE'S DAILY" reported today.

The station, the first continental TV program ground satellite relay station designed and made by China, successfully completed the task of relaying TV broadcasts of the 11th Asian Games held in Beijing from September 22 to October 7 to the rest of the world.

The station was designed by the Ministry of Aeronautics and Astronautics Industry, according to the newspaper.

Portable Satellite TV Earth Station on International Market

91P60055 Beijing ZHONGGUO DIANZI BAO [CHINA ELECTRONICS NEWS] in Chinese 18 Nov 90 p1

[Article by Huang Jiwei [7806 4949 0251]: "Portable Satellite TV Earth Station Enters International Market for First Time"]

[Summary] On 7 October, two flat-bed trucks carrying a portable satellite television earth station set out from the Ministry of Machine-Building & Electronics Industry's Shijiazhuang Institute 54, which developed the system, on a trip to Myanmar [Burma]. This is the first time that a Chinese-made portable satellite TV earth station has been sold on the international market. This portable station, which can send one TV program or receive two, will form an integral part of Myanmar's satellite TV system.

An expert technical appraisal of the new portable earth station was given by the AsiaSat Company's Senior Engineer Xu Jinqiang, who supervised the entire debugging and testing process. Mr. Xu officially certified that the portable station complies with all relevant requirements—including Intelsat's strict requirement for antenna sidelobe characteristics—for entering the AsiaSat network built around AsiaSat I. The portable earth station utilizes a high-gain, low-sidelobe ring-focus antenna, a domestically made 400-watt traveling-wave-tube high-power amplifier, and a 55K [i.e., noise temperature of 55°K] low-noise amplifier.

Telephone System Enhances XINHUA Telecommunications

OW2012133390 Beijing XINHUA in English 1302 GMT 20 Dec 90

[Text] Beijing, December 20 (XINHUA)—A new telephone system officially opened here today as a step to further modernize XINHUA News Agency's telecommunications facilities.

The Meridian SL-1 XT system, with Meridian mail and digital trunks, will carry nearly 5,000 lines and handle data transmission. The system, supplied by Canada's Northern Telecom, will link all journalists in the agency's new headquarters.

Earlier this year the agency installed a new computer system for news processing in its new 24-story headquarters to help it become one of the world's major news agencies.

Dr. Howard Chao, a noted Chinese-American scholar and senior advisor to Northern Telecom, and Director-General of XINHUA Mu Qing cut the ribbon at this morning's opening ceremony.

Jilin Microwave Communications Development Reported

SK3112050790 Changchun Jilin Provincial Service in Mandarin 1030 GMT 28 Dec 90

[Summary] Our province's microwave telecommunications construction has developed by leaps and bounds since the third plenary session of the 11th party Central Committee. The Beijing-Shenyang-Changchun microwave equipment was improved, and the wave channels were increased from three to six, and the microwave stations from eight to 38. The transmission lines total 2,786. Three microwave lines were also laid from Changchun to Baicheng, Hunchun and Hunjiang.

Liaoning Vice Governor Views Communications Facilities

SK1812040390 Shenyang Liaoning Provincial Service in Mandarin 1030 GMT 15 Dec 90

[Text] The provincial government held a provincial conference on the rural communications work at the Liaoning Mansion in Shenyang on the morning of 15 December. At the conference, Vice Governor Wen Shizhen made a report entitled "Accelerating the Development of the Rural Communications Facilities to Help Invigorate the Province's Economy."

Wen Shizhen said in his report: Since the convocation of the 1988 provincial conference on the rural communications work, the province's communications capacity has

increased by a large scale, and the communications technology, equipment, and service level have embarked on a new level. Meanwhile, the communications service development target set by the Seventh Five-Year Plan has been fulfilled in a comprehensive manner. By the end of this year, the total capacity of telephone exchanges in the province's rural areas is expected to reach 198,000 lines, an increase of 65 percent over 1987. Thus far, 108 towns and townships in the province have realized automation of rural telephones. And, the number of telephones owned by every 100 rural citizens has increased from 0.26 sets in 1980 to 0.43 sets at present.

Wen Shizhen said: Although our province has scored some achievements in developing rural communications facilities, the rural communications service remains extremely backward. The communications means is simple, the communications equipment obsolete, the funds for building communications facilities inadequate, and the construction of the rural long-distance communications facilities and that of the urban telephone facilities is out of proportion.

With regard to the province's communications development plan during the Eighth Five-Year Plan period, Vice Governor Wen Shizhen said: During the Eighth Five-Year Plan period, our province will give priority to developing the telephone network of coastal and open areas as well as the counties and districts along the Shenyang-Dalian Express Highway, with focus on realizing automation of town and township telephone network and on increasing the popularization rate of telephone sets. The telephone facilities in county towns should be provided with the domestic and international communications functions.

Xie Gaojue, vice minister of posts and telecommunications, attended and addressed the conference.

REGIONAL AFFAIRS

Further on Lucky-Goldstar Contract With Pakistan

SK1812105790 Seoul THE KOREA ECONOMIC JOURNAL in English 17 Dec 90 p 10

[For earlier report, see JPRS-TTP-90-020, 13 December 1990, p 6]

[Text] Lucky-Goldstar International Corp. has signed a \$16 million contract with the Pakistani Communications Ministry to supply communication cables, company sources said.

The company won the award from an international bid recently held by the Pakistani ministry for the purchase of communication cable, the sources explained. The bidding was attended by makers from eight countries, including the United States, Germany, Taiwan, Saudi Arabia and Korea.

Under the contract, Lucky-Goldstar International Corp. will supply to Pakistan communication cables made by four Korean makers, Goldstar Cable, Kukje Electric Wire, Daewon Cable and Kuk Dong Electric Wire by June 1991, the sources said.

In November this year, Lucky-Goldstar International Corp. signed a \$13 million contract with Morocco and a \$17 million contract with Iran for the supply of communication cable.

In 1989, the company exported \$10 million worth of super high-voltage cable to the Pakistani office of hydraulic power, the sources added.

Korea To Help Modernize Indonesian Communications Services

SK2712050690 Seoul THE KOREA HERALD in English 27 Dec 90 p 3

[Text] Korea has won a \$3.2 million contract to provide technology consultation services to Indonesia as part of the multibillion dollar project to modernize and expand its telecommunication network.

The contract was signed by Korea Telecommunication Authority (KTA) and Indonesia's Perumtel last week, KTA president Yi Hae-uk said at a press conference yesterday.

By winning the technology consultation contract, Yi said that Korea is favored to win the contracts to supply equipment for Indonesia's telecommunications program.

Indonesia plans to increase the number of telephone lines in the country from 2.2 million to 9 million by the turn of the century, the KTA president said.

Korea is emerging as a major exporter of telecommunication equipment following its development of the advanced TDX digital telephone switching system.

According to the contract which covers the next two years, KTA will station six telecommunications experts at the head office of Perumtel to provide advice on modernizing Indonesia's telecommunications.

Besides this, KTA will train 20 Perumtel officials for three months on the operation of telecommunication systems and management of telecommunication networks at the KTA training center in Korea, Yi said.

The contract with Perumtel is the first major telecommunication technology service export contract won by a Korean firm, the KTA president said.

The contract has paved the way for Korea to win similar contracts in other Southeast Asian countries such as Vietnam and Laos which plan to launch massive telecommunication modernization projects.

KTA's technology consultation service mission will leave for Indonesia in February 1991 and stay there until February 1993 when the contract expires, he said.

The mission will advise Perumtel on planning telecommunication networks, planning an purchase of equipment, Yi said.

Perumtel selected KTA as its technology adviser after evaluating KTA's technology level and its achievement in expanding Korea's telephone network, he said.

KTA will form another 15-member team based in Korea to support the technology consultation mission dispatched to Indonesia.

The local team will comprise 10 officials of the KTA and five officials of KTA's international business subsidiary, Korea Telecommunication International (KTAI).

Perumtel will pay KTA with its own funds and a loan from the World Bank, he said.

Yi said that KTA is seeking to participate in telecommunication modernization programs in Libya, Burma and other countries.

Indonesia, Thai Company Sign Tranponder Rent Agreement

BK1312150190 Jakarta Domestic Service in Indonesian 1200 GMT 13 Dec 90

[Also see JPRS-TTP-90-013, 28 September 1990, p 8]

[Text] Beginning on 1 January 1991, Samat Telecoms, a private Thai telecommunications company, will rent the remaining three-fourths of a Palapa B-2 P satellite transponder. Thus, the company will rent the whole transponder for a 3-year period. A press release from the head office of the Telecommunications Corporation [Perumtel] in Bandung disclosed that the amendment

worth U.S. \$600,000 was signed respectively by Purwo, Perumtel operations and technical director, and Chatchai Bunnak of Thailand's Samat Telecoms.

In addition to Samat Telecoms, four Thai agencies are now renting Palapa B-2 P satellite transponders.

INDONESIA

Educational TV Programs to Start in January

*BK2012153290 Jakarta THE JAKARTA POST
in English 12 Dec 90 p 3*

[For earlier report, see JPRS-TTP-90-010, 31 August 1990, p 7]

[Excerpt] Jakarta (JP)—The company planning to air educational programs through the state-run television station says it is ready to go into operation next month.

Directress of PT Televisi Pendidikan Indonesia (PT TPI) Mrs. Siti Hardiyanti Rukmana told the House of Representatives Monday [10 December] the programs would be on the air for three hours a day during the first four months.

The airing hours will be increased gradually to 10 hours a day over the next four years, she told House Commission IX on education and culture.

Mrs. Hardiyanti, the eldest daughter of President Suharto, said until PT TPI was able to build its own TV stations, the programs would cover limited areas.

The educational programs are to be aired under a cooperation agreement between the Ministry of Education and Culture, the state-run television network TVRI [Television Republic of Indonesia], and PT TPI. [passage omitted]

JAPAN

KDD Plans Aircraft-Ground Communications Service

Better Quality Communication

*OW1312233490 Tokyo KYODO in English 1245 GMT
13 Dec 90*

[Text] Tokyo, Dec. 13 KYODO—Kokusai Denshin Denwa Co. (KDD), Japan's international telecommunications giant, said Thursday that it will launch an air-ground data communications service next Thursday, using a satellite of the International Marine Satellite Organization (Inmarsat).

KDD has applied to the Ministry of Posts and Telecommunications for permission to launch the service.

KDD officials said the service will make possible communication of a much better quality than the present

high-frequency or ultrahigh frequency communications between aircraft and the ground.

The officials said that in the new service, airlines on the ground may communicate with planes flying anywhere in the Pacific region, contributing to safer flight.

They said KDD will also start international telephone service next spring between aircraft flying anywhere in the Pacific region and the ground, using an Inmarsat satellite.

Service to Foreign Aircraft

*OW1812134390 Tokyo KYODO in English 1317 GMT
18 Dec 90*

[Text] Tokyo, Dec. 18 KYODO—Kokusai Denshin Denwa Co. (KDD) will launch an aeronautical satellite data communications service Thursday, KDD officials said Tuesday.

The service will link aircraft in flight and main computers in the airlines' offices via Inmarsat, said officials with the international telecommunications giant.

So far, such data communications have been made by using very high frequency (VHF).

Also, KDD will start an air to ground and air from ground VHF data communications service to foreign aircraft in flight over Japan, the officials said. The service has thus far been available only to Japanese aircraft.

The service will begin Wednesday, they said.

These new services will enable fast and reliable transmission of aviation information, such as arrival time, maintenance, and weather, KDD officials said.

JC-SAT To Service Cable Television Networks

*OW2712103990 Tokyo KYODO in English 0557 GMT
27 Dec 90*

[Text] Tokyo, Dec. 27 KYODO—Space Communications Corp. (SCC) said Thursday it has contracted with Japan Communications Satellite Co. (JC-SAT) to use its two telecommunications satellites to resume services to broadcasters feeding programs to cable television (CATV) networks.

Last Sunday, SCC abandoned efforts to repair the Superbird A satellite because of technical difficulties which knocked it out of service just four days earlier. The sudden disruption to services affected eight television broadcasters which use the satellite to transmit programs to nine CATV stations.

The agreement stipulates that SCC will be able to access December 29 nine transponders on JC-SAT's two satellites to resume services to CATV customers.

It will also supply three extra circuits to land-based television stations and make the appropriate technical

adjustments to client's antennas to enable the transmission of the broadcasting signal.

In addition, Nippon Telegraph and Telephone Corp. has agreed to allow SCC to use three of the 13 transponders it rents from JC-SAT. They will be used for service to general businesses and telecommunications service companies, officials said.

Current JC-SAT contracts will expire at the end of February and will be renegotiated with customers in March to supply service over different circuits, officials said.

The Ministry of Posts and Telecommunications (MPT) is expected to approve a temporary wireless transmission license sometime Friday to help the company out of its predicament, officials said.

JC-SAT is an affiliate of C. Itoh and Co., Mitsui and Co., and General Motors Corp. It was set up in 1985. SCC was established the same year by 27 companies from the Mitsubishi group.

Sumitomo To Buy Stake in Satellite Broadcasting Firm

OW2112130090 Tokyo KYODO in English 1221 GMT
21 Dec 90

[Text] Tokyo, Dec. 21 KYODO—Sumitomo Corp., a leading trading company, has agreed to purchase an equity stake in Japan's third satellite broadcasting station, Japan Satellite Corp., industry sources said Friday.

With Sumitomo's participation, Japan Satellite will apply for approval of the Ministry of Posts and Telecommunications as early as next month to start satellite broadcasting, the sources said.

Nissho Iwai Corp., another major trader, already holds a 48.5 percent interest in the satellite firm. Sony Corp. also has a financial stake in the company.

Japan Satellite Corp. was set up in 1985, with an initial capital of about 400 million yen. It plans to seek more partners to increase its capital to 20 billion yen, according to the sources.

When the capital increase is completed, Nissho Iwai and Sumitomo Corp. will share the status of No. 1 shareholder in the satellite broadcasting firm, they said.

The Tokyo-based firm is counting on the Sumitomo group of companies to attract subscribers for its broadcasting service.

Sumitomo decided to purchase an interest in the company due to the fast-growing cable television market, industry sources said.

SOUTH KOREA

Paper Reports Government To Allow N. Korean TV, Radio

Foundation for Cooperation

SK0401104091 Seoul KYONGHYANG SINMUN
in Korean 4 Jan 91 p 1

[Text] It has been learned that the government worked out a policy for completely opening the seeing and hearing of North Korean television and radio in order to lay a foundation for exchange and cooperation between the North and the South of Korea. Thus, on 4 January, the government is reported to be carefully reviewing the time for implementation of this policy.

The government repeatedly proposed to the North Korean side in the past to mutually open and exchange television, radio, newspapers and publications as a necessary condition for building political trust between the North and the South. However, the government failed to reach an agreement with the North Korean side. Accordingly, our side decided to unilaterally take a step for opening.

A high-ranking government official pointed out that "lack of foundation for common consciousness between the North and the South, which was caused by division and cultural severance for 45 years, worked as a hindrance to full-scale exchange and cooperation." He added that "as an advance step for full-scale opening of radio waves and mass media, our side is planning to unilaterally allow the seeing and hearing of North Korean television and radio."

He stressed that "the mutual opening of seeing and hearing of television and radio is an indispensable process for mutually understanding the different political and economic systems and environment of life between the North and the South and for recovering common culture and value." He also explained that the relevant government offices completed reviewing technological measures required for our side's unilateral opening.

As for the time of opening, this official said that "the time will be the point when the North Korea side show its sincerity, even a slight degree, for exchange and cooperation." Thus, he suggested that the government may possibly declare the full-scale opening during the first half of the year at the earliest.

The government has included the mutual opening of seeing and hearing television and radio as an essential provision in the draft plan for building political trust to be discussed during the North-South high-level talks and in the draft of a basic agreement for improving the North-South relations.

Such a policy by the government was prompted by its judgment that this year will be an occasion for epochally

developing North-South exchanges and economic cooperation according to domestic and overseas situation including North Korea's full-scale negotiations with Japan for establishing diplomatic relations.

At the same time, in order to expand the exchange of manpower, the government is planning to review the name and scale of "great national exchanges," which it proposed to the North Korean side in August of last year but ended in failure, and to determine the problems arising in implementing this proposal. After this step, the government will continually push for great national exchanges on all national holidays including New Year's Day by the lunar calendar and Hansik [national folk day on which brief memorial services are held at ancestral tombs].

Government Denies Opening of North TV, Radio

*SK0401104891 Seoul Domestic Service in Korean
0800 GMT 4 Jan 91*

[Text] The Government denied a press report that the government recently decided to unilaterally open the North Korean television and radio. The government stressed that such a report is groundless and that it has not reviewed technically and legally the issue of opening the North Korean broadcast.

A relevant official of the Unification Board today said it is the government's basic position that the opening of various domains, including radio waves, should be realized, in principle, on the basis of reciprocity. Therefore, the unilateral opening of the radio waves without agreement with the North Korean side cannot possibly be realized.

This official pointed out that in the event that we unilaterally open North Korea's radio waves at the present stage, North Korea's psychological broadcast will be added to its program and as a result of this, genuine significance for exchanging radio waves can hardly be attained.

Communications Ministry Allows Opening of VAN Service

*SK2812092990 Seoul YONHAP in English 0834 GMT
28 Dec 90*

[Text] Seoul, Dec. 28 (YONHAP)—The Communications Ministry will open the Value-added Network (VAN) service to the private sector in April at the latest in a preemptive action to counter mounting U.S. pressure to open South Korea's telecommunications market, it was announced Friday.

Domestic VAN companies will be allowed to engage in data transmission, circuit resale and international VAN service, and to jointly use international communications circuits.

An annual subsidy of between 10 billion won and 14 billion won will be given to telecommunications firms,

and companies with 200 or fewer employees will have rates for use of telecommunications circuits cut by up to 30 percent for the next two to three years.

International VAN offers data base, data processing and score and forward transmission services such as electronic mail and computerized reservations.

Data transmission service provides a contractor with a packet exchange system to give access to data without any change of form or content. Some 7,000 people or institutions currently subscribe to the data transmission service of Data Communications Corp. of Korea (DACOM).

The circuit resale service offers low-rate circuits to contractors by splitting high-rate circuits of the public telecommunications corporations through a multiplexer (Mux).

When it comes to the joint use of international circuits, firms are permitted to use those circuits for non-profit communications between their headquarters and branch offices, but from early next year they will be able to use the circuits for dialogue with other companies too.

The Uruguay Round service accord's telecommunications annex leaves the right to set limits on intra-company communication to each government and it is highly likely the Korean Government will exclude voice service as a means of intra-company communication.

The Communications Ministry announced in July that it would allow data transmission and circuit resale by domestic companies from the latter part of 1992 and access to international VAN from July 1991.

The United States has been calling for the early opening of the Korean Communications market, particularly during February's Korea-U.S. meeting on telecommunications.

To help the domestic information-communications industry, the ministry will set up a 100 billion-won fund for VAN businesses.

To encourage information providers (IP), the core element of data base service, the ministry is considering introducing a system by which public telecommunications corporations such as Korea telecommunication authority collect payments for information on behalf of IP's from their users.

At present, 21 private companies are registered with the ministry for VAN service and 154, including the 21, are engaged in data base and data processing businesses.

Ministry sources said that restrictions on foreign companies' international van service and the 50-percent ceiling on foreign investment in joint ventures would be maintained for some time to prevent fatal damage to the domestic industry.

LAOS

UNDP-Financed Telecommunications Program Signed

BK1812113590 Vientiane KPL in English 0934 GMT 18 Dec 90

[Text] Vientiane, Dec 18 (KPL)—A new cooperation programme of UNDP [United Nations Development Programme] in telecommunication was signed here yesterday by Mali-gna Sai-gnavong, director of the International Organisations Department of the Ministry of Foreign Affairs, and Miss Carroll Long, resident representative of UNDP to Laos.

Jointly financed by the UNDP and the World Bank and with a 4,700,000 American dollars budget, the project will help the Lao government realise a programme of expansion and modernisation of telecommunication services and introduce the state enterprise of telecommunications and posts to the capacity of necessary management, operation and maintenance.

This project of the UNDP, integral part of a global investment programme amounting to 45,500,000 American dollars in telecommunication sector and co-financed by the International Development Association and the Japanese government, will mobilize necessary consultations and expertises for the realisation of the investment and provide a programme of necessary training of personnel in the services.

MALAYSIA

Seven FM Transmitting Stations To Be Operational in 1991

BK2312085090 Kuala Lumpur International Service in English 0800 GMT 23 Dec 90

[Text] All the seven FM transmitting stations in Malaysia are expected to be operational early next year. It will bring reception to 93 percent of the inhabited areas in Peninsular Malaysia.

Parliamentary Secretary to the Information Ministry, Datuk Haji Fauzi Abdul Rahman, said only 50 percent of these areas have FM reception disc. He said in Kuantan that the seven stations cost 9.88 million ringgit to put up. Datuk Haji Fauzi said another 15 million ringgit would be spent to set up 11 more such stations in Sabah and Sarawak.

Malaysia Launches Large-Scale Investment Program

91AN0053 Chichester INTERNATIONAL TELECOMMUNICATIONS INTELLIGENCE in English 8 Oct 90 p 22

[Article: "Five-Year M\$5.6 Billion Investment Programme Announced"; all figures are in Malaysian dollars]

[Text] Syarikat Telekom Malaysia (STM or Telekom Malaysia), the government-owned corporation that is setting the scene for private-sector investment in the country's telecommunications infrastructure (formerly managed by Jabatan Telekom Malaysia), is embarking on an ambitious and much-needed five-year, M\$5.6-billion (\$2.1-billion) capital improvement programme. Announcing this, STM also said it would cooperate with Singapore Telecom on engineering, marketing, and international service projects as well as joining with eight other carriers and telecommunications administrations to build Asia's longest fibre-optic submarine cable system linking Hong Kong, Japan, Malaysia, Singapore, and Taiwan.

The M\$5.6-billion, five-year plan includes M\$1.4 billion for a cellular telephone expansion programme; M\$415 million for investment in jointly constructed and operated international fibre-optic undersea cables, including the project with eight other carriers; M\$1.4 billion on expanding rural telecommunications; and at least M\$2.5 billion for general modernisation. STM is also planning a nationwide digital transmission network, including microwave. Within three years, the digital network is expected to be sufficient to enable commercial integrated services digital network (ISDN) services to begin.

Malaysia's telecommunications development is way behind other Asian countries. Its 1,484,000 telephone lines (June 1990) and a penetration ratio of eight per 100 people compares badly with Singapore, which has 37 telephones per 100 people. In 1987 the number of telephone lines in Malaysia totalled 1,131,700. At the end of June 1990, STM had 30,156 telefax service customers, compared with 4,674 in June 1987.

The company's ATUR 450 cellular mobile phone system has grown from a customer base of 17,411 in January 1987 to 47,060 subscribers in June 1990.

STM said the success of the five-year plan will be based on the success of its public shares offering.

TAIWAN

Premier Approves Satellite Development Plan

OW2212084690 Taipei Domestic Service in Mandarin 2300 GMT 20 Dec 90

[From the "News and Commentary" program]

[Text] Premier Hao Po-tsun of the Executive Yuan yesterday morning approved a medium- and long-range satellite development plan drafted by the group in charge of long-range planning for space science and technology.

The plan, to be carried out in three stages in 15 years, will seek to build ground reception stations, to design satellite systems, and to map out technological goals. Detailed planning will be carried out for six months starting in January 1990. Premier Hao also suggested that the Industrial Technology Research Institute be

considered for taking charge of planning and implementation in order to coordinate the efforts of various ministries and commissions.

THAILAND

Optical Fiber Submarine Cable Network Begun

*BK1612092590 Bangkok Domestic Service in English
0000 GMT 14 Dec 90*

[From the "News In Perspective" feature]

[Text] During the past few years, Thailand's economy has been growing at a rapid pace—11 percent per year in average, an increase of 7.5 percent from the target set. Major growth has been seen in the manufacturing sector, where international telecommunications services are essential. This has prompted the Communications Authority of Thailand, or CAT, to further develop the efficiency of its international telecommunications system. The move is also in line with the government's policy to make Thailand future center of telecommunications in Southeast Asia.

CAT is currently adopting two international telecommunications systems—a satellite communications system and the coaxial cable system, the latest part of the ASEAN submarine cable system linking Malaysia, Singapore, and Thailand. However, the coaxial cable system put into use since 1982 has reached its peak operation since 1988 while other systems in which Thailand invested with other countries or just purchased their transponders are also nearly fully used. The Cabinet, therefore, approved earlier this month a project of the Communications Authority of Thailand, in which CAT will invest more than 4 billion baht in the first-stage optical fibre submarine cable network to be undertaken jointly by Thailand and Malaysia. The project, which is part of the ASEAN-Pacific optical fiber submarine cable network, involves construction of an international optical fiber submarine cable system from the southern province of Phet Buri to Kuantan in Malaysia.

The CAT will also be responsible for laying the cable between Phet Buri and Laem Chabang, a new industrial zone being developed on the Eastern Seaboard. A cable link will also be established between Phetchabun and Bangkok and from Bang Rak District to Nonthaburi Province.

Thailand signed a memorandum of understanding on the project with countries involved on 4 August last year. Construction will take five years starting this year. Services will begin in 1993 and is expected to serve the country's telecommunication needs for the next 25 years. Apart from the project, the CAT will also undertake a joint venture in other optical fiber cable networks in the Pacific Ocean. Those projects will enable the CAT to increase the number of long-distance telephone circuits for its international services to cope with the country's growing economy.

According to the CAT, the optical fiber submarine cable project will not only relieve of traffic [as heard] on the satellite network but will also contribute to greater accuracy and conveniences in service as well as to the country's credibility in telecommunications technology.

The cable will be used as an alternative route for the satellite telecommunications system in case of any disruption to principal network. The Thai-Malaysian optical fiber submarine cable system will enable Thailand to link its telecommunications network with other ASEAN countries as well as those in the Far East, North America, and Australia. To implement the joint development plan, Thailand will have to sign a loan agreement with Malaysia, the insurance agreement for the construction of an optical fiber submarine cable between Phet Buri and Kuantan and the construction and maintenance agreement to be enforced throughout the operation of the system.

Acting Communications Minister Montri Phongphanit has said it is important for the CAT to complete the cable project as soon as possible to avoid a complete breakdown of connections to the southern provinces as land connections are often cut during natural disasters such as that caused by Typhoon Gay.

Firm Launches Thai-Language Cable TV

*BK2812022190 Bangkok BANGKOK POST in English
28 Dec 90 p 15*

[Text] International Broadcasting Corp, an affiliate of the Shinawatra Computer Group, is to inaugurate a Thai-language channel from January 1 and plans to use satellite transmission in the long term to solve the poor cable TV reception problem of its subscribers.

Two weeks ago, the Shinawatra group was given preliminary approval by former Transport and Communications Minister Montri Phongphanit to implement Thailand's first multi-billion-baht commercial satellite project.

The group plans to launch four satellites, with the first launching scheduled for no later than the first quarter of 1993.

Group chairman Police Colonel Thaksin Shinawatra said yesterday the poor reception problem for clients of its cable TV service was because of Thailand's humid climate.

Currently, IBC runs two English channels with most of the programmes relayed from the United States. However, Thai television is based on the European PAL system, while the US uses the NTSC system.

This meant the IBC microwave must convert 2,500 MHz to 200 MHz. To resolve the problem, IBC has imported a PAL system down-converter to adjust the NTSC signal from the US.

"They (Americans) just created PAL converters which suit the environment and climatic conditions in the US," he said. To resolve the problem, IBC has added a circuit to the PAL converter.

Dr Thaksin claimed that only a few subscribers were getting poor pictures, mainly those living in weak reception areas.

"Next year, we expect to attract 37,000 more home subscribers because of the Thai-language channel."

He admitted IBC attracted fewer subscribers this year than it had planned for and blamed this on the six months it took to adopt the downconverter to improve picture reception.

VIETNAM

Radio-Television Transmission Output Increased
BK1412100890 Hanoi Domestic Service in Vietnamese
1100 GMT 13 Dec 90

[Text] The Radio and Television Broadcasting Technique Department of the General Corporation of Posts and Telecommunications has made many efforts to improve the technical quality of various radio and television programs. At present, the post service has introduced high quality ultra-short wave FM transmissions based on the frequency modulation technique.

The department has concentrated its technical and financial resources on improving the Tam Dao transmission station. At the same time, it has built a broad-band microwave transmission line for color television signals from the Giang Vo Center in Hanoi to the Tam Dao station, increasing the station's output to 18 kilowatt from its original output of 10 kilowatt. This will enhance resolution and improve the sharpness of television reception. All these efforts will help extend the radius of television broadcast and enhance reception quality in the Bac Bo delta and midlands.

The department is building in Hanoi a new television transmission station with a 116-meter antenna tower. It plans to acquire a 10-kilowatt television transmitter capable of VHF and UHF transmissions to further improve the quality of television and FM radio broadcasts.

Television Relay Station Set Up in Cao Bang

BK2112073890 Hanoi Domestic Service in Vietnamese
0500 GMT 20 Dec 90

[Text] Cao Bang Province has just finished constructing and put into use the Do Buon Television Relay Station in Hoa An District.

The station consists of a 21-meter high antenna, an office area, and a protective fence around the station at the total cost of 36 million dong.

With the Do Buon Station, the Cao Bang Radio and Television Station has the ability to receive and transmit the daily programs of the Central Television Station. It does not have to tape those programs in Hanoi then transport them to Cao Bang by motorcar like before.

CZECHOSLOVAKIA**Governments Reach Compromise on Federal Television**

AU1712125990 Prague MLADA FRONTA DNES in Czech 11 Dec 90 p 2

[Interview with Jozef Miklosko, CSFR deputy premier, by a "tln"-signed MLADA FRONTA DNES correspondent, in the "We Asked" column; place and date of interview not given]

[Text] **[MLADA FRONTA DNES]** Talks were held on Friday [7 December] on the future of television broadcasting in Czechoslovakia. What is the outcome?

[Miklosko] The new law on division of powers will make it possible for two televisions to be set up—Czech Television and Slovak Television. At the same time there will be federal broadcasting, yet not above but alongside the two televisions. Federal broadcasting will make news and current affairs programs and programs concerning foreign affairs and questions of defense. Czech and Slovak Television will be duty bound to include these topics in their programs to an appropriate degree. In other words, the F 1 channel [the current federal program] will be made jointly by Czech Television and Slovak Television with federal entries. Licenses for private broadcasting will also be issued by the republics. All participating sides gave their consent to this proposal.

ARGENTINA

Three State Radio Stations Sold to Private Sector

PY2212180890 Buenos Aires DYN in Spanish
2332 GMT 17 Dec 90

[Text] Buenos Aires, 17 Dec (DYN)—The radio stations LS 5 Radio Excelsior of Buenos Aires, LU 33 Emisora Pampeana, and LV 3 Radio Cordoba were sold today to different private groups. The winner of the bid for the purchase of LR 3 Radio Belgrano decided, however, to withdraw; therefore, the one that was second will have a chance to buy it.

The documents transferring the radio stations to private hands were signed this afternoon during a ceremony in the conference room of the presidential house in the presence of Raul Granillo Ocampo, legal and technical secretary; Guillermo Ocampo, under secretary of coordination and administration of communications media; and Raul Otero, chief of the National Telecommunications Commission.

The new radio station owners are: Red Celeste y Blanca Inc. bought LS 5 Radio Excelsior; Radiodifusora del Centro Inc. bought LV 3 Radio Cordoba; and Radiodifusora Pampeana bought LU 33 Emisora Pampeana.

Radio Belgrano has already been offered to Nueva Difusora Inc., which is headed by the Gowland group because Migromoldes Inc., which won the bid, did not accept it.

The only thing that remains to be done now is official delivery of the radio stations and disclosure of the amounts offered to win the bids. There is no information when the official delivery will be made.

PARAGUAY

New Telecommunications Administration Chairman Named

PY2812000290 Asuncion *ULTIMA HORA* in Spanish
27 Dec 90 p 13

[Summary] The executive branch this morning appointed Colonel Guillermo Godoy Gimenez president of the National Telecommunications Administration Council, replacing Colonel Miguel Cirilo Guanes.

[Asuncion morning newspapers ABC COLOR, NOTICIAS, and PATRIA on 28 December on page 13, 14, and 5, respectively, render the name of the new chairman of the National Telecommunications Administration Council, Antelco, as Colonel Guillermo Godoy Galeano.]

REGIONAL AFFAIRS

Arab Radio, Television Federation Meeting Opens in Cairo

*NC1812134790 Cairo Domestic Service in Arabic
1230 GMT 18 Dec 90*

[Excerpts] Information Minister Safwat al-Sharif has asserted that the Egyptian Radio and Television Union dedicates all its resources to the service of Arab media so that the desired goals can be realized. He said the inauguration of the Egyptian satellite channel is a landmark in the field of Arab media through which Egypt helps Arab media to confront the challenges posed by foreign media and to preserve Arab identity and culture.

This came at the inauguration of the general assembly of the Arab Radio and Television Federation in Cairo today. The speech was delivered on al-Sharif's behalf by Engineer Fathi al-Bayyumi, chief of the board of trustees of the Egyptian Radio and Television Union.

The information minister said the Egyptian union is prepared to provide all Arab countries with the necessary equipment to receive Egyptian satellite transmissions so as to enrich the flow of Egyptian programs and news material to Arab countries.

Delegations from 16 Arab states are taking part in the general assembly meetings, which will continue for three days. Eng. Fathi al-Bayyumi is leading the Egyptian delegation. [passage omitted]

At the first session, the conferees elected the seven members of the executive council from Egypt, Saudi Arabia, Syria, Algeria, Yemen, Tunisia, and Jordan.

Eng. al-Bayyumi was elected chairman of the Arab Radio and Television Federation for the next two-year session, and Dr. 'Ali 'Abd-al-'Aziz al-Khudayri, head of the Saudi delegation, was elected deputy chairman.

EGYPT

Radio Kuwait To Broadcast From Cairo as of 1 January

*NC2912150990 Cairo MENA in Arabic 1330 GMT
29 Dec 90*

[Text] Cairo, 29 Dec (MENA)—Radio Kuwait [idha'at al-kuwayt] will start broadcasting from Cairo as of 1 January 1991. The radio will broadcast for three hours daily, from 2000 to 2300, [1800 to 2100 GMT] on the medium wavelength 271 meters [1107 kHz], the same frequency on which the Palestine and Nile Valley radios are broadcast.

Egyptian Radio Director Amin Basyuni said that the transmission of Radio Kuwait from Cairo will be in implementation of the information cooperation protocol

signed by Egyptian Information Minister Safwat al-Sharif and Kuwaiti Information Minister Dr. Badr Jasim al-Ya'qub earlier this month.

Basyuni added that Radio Kuwait from Cairo will be under the complete political supervision of the Egyptian radio. Only Kuwaiti announcers and some Gulf states' announcers will work at the station. Radio Kuwait from Cairo will use the same identification signal as that used by Radio Kuwait.

Basyuni explained that this radio will be a Kuwaiti voice added to the Arab and Kuwaiti radios which are serving the line opposed to the Iraqi aggression against Kuwait and calling for the return of the legitimate government to Kuwait.

He added that Radio Kuwait's political line will focus on condemning Iraqi terrorism as a matter of principle and on addressing the fraternal Iraqi people, who have no interest in the aggression against the Kuwaiti people.

Basyuni said Radio Kuwait from Cairo is an indication that the Egyptian media have employed all their resources and cadres to serve all Arab issues in times of crisis when an Egyptian voice which believes in Arabism and the Arab nation's causes is necessary.

A Kuwaiti information source in Cairo has stressed that this radio will be an important source of news items about Kuwait and that world news agencies and radios will pick up these reports. This is because the radio is in a position to obtain news and hold interviews with important personalities who are closely monitoring the crisis.

Work to set up Radio Kuwait from Cairo has been delayed for some time. This is because the Egyptian Radio and Television Union has been busy setting up Radio Kuwait from Dammam [Saudi Arabia] and providing it with the necessary staff. Work then began to set up Radio Kuwait from Cairo, provide it with staff, and furnish it with a studio and an audio library.

INDIA

Satellite Equipment Fabricated in Ahmedabad

*BK2412092590 Delhi Domestic Service in English
0240 GMT 24 Dec 90*

[Also see JPRS-TTP-90-020, 13 December 1990, p 16]

[Text] The Space Applications Center, Ahmedabad, has fabricated a fully indigenous satellite gathering equipment. The equipment was successfully tested recently by transmitting signals from Ahmedabad to Delhi via Insat 1-D.

**MMW Technology for Use in Missile Warheads,
Wide Band Communication**

*BK1812112490 Delhi Domestic Service in English
0830 GMT 18 Dec 90*

[Text] India has joined a select band of countries having Milli Meter Wave—MMW—techniques and system of wireless transmission. Only seven countries, including the United States, Germany, and Britain have acquired this technology so far. Developed by a dedicated group of scientists of the Defense Electronics Applications Laboratory—DEAL—Dehradun, the technology would be utilized in missile warheads.

Briefing newswriters about the developments in this particular field in New Delhi today, the director of DEAL, Mr. V. Prakash Pandras said that even several potential applications such as portable radars, nonpac satcom terminals, missile heatseekers, smart munition, collision avoidance, all weather imagery, and wide band communication systems.

ISRAEL

Agreement Signed With French Satellite Company

*TA1412131690 Jerusalem Domestic Service in English
1800 GMT 13 Dec 90*

[Text] Israel will soon pick up broadcasts from the French spot set satellite. An agreement was signed today between the Israel agency for using outer space and the French Spot Image company. The satellite broadcasts are expected to be used in the fields of agriculture, meteorology, cartography, urban planning, and geology.

[Jerusalem THE JERUSALEM POST in English on 11 December in a report on page 10 adds that the agreement will also supply "useful data" for "security purposes. The photos will be received at an Israel Aircraft Industries station."]

**Communications Agreement Signed With
Romania**

*TA1812101890 Jerusalem THE JERUSALEM POST
in English 18 Dec 90 p 10*

[Report by Judy Siegel]

[Text] Israel and Romania have agreed to increase substantially the number of telecommunications channels between them. Bezeq officials have also asked for a mutual reduction in phone rates to the level that exists between Israel and Europe. The agreement to add 12 new communications channels was reached yesterday in Tel Aviv by Bezeq chairman Yoram Alster and Romanian Communications Minister Andrei Chirica.

**Activists in Territories Using Ham Radios for
Communication**

*TA0301094491 Tel Aviv YEDI'OT AHARONOT
in Hebrew 3 Jan 91 pp 1, 12*

[Report by Hayim Broida and Roni Shaqed]

[Excerpts] "The PLO maintains a two-way communication system with the territories, with at least four or five radio stations transmitting from the territories to PLO headquarters," says radio ham David Ben-Basat from Ra'anana, who claims he began monitoring these transmissions several months ago.

Ben-Basat further said that radio hams from the territories have put their equipment at the disposal of Fatah activists, who broadcast to PLO headquarters several times each day, and that each transmission lasts several minutes. The transmissions include reports on events in the field and operational instructions pertaining primarily to fund distribution. [passage omitted]

Reception of the radio transmissions is very good and both sides are heard clearly. They conduct conversations in plain language and use no codes or code words, although they use nicknames, presumably to prevent exposure of their identity.

'Raduga' Communications Satellites Launched**'Raduga' Launched 20 Dec**

LD2112090890 Moscow TASS International Service in Russian 0827 GMT 21 Dec 90

[Text] Moscow, 21 Dec (TASS)—Another "Raduga" communications satellite with retransmitting equipment on board to ensure telephone and telegraph radio communications and transmission of television programs was launched by a "Proton" carrier rocket in the Soviet Union on 20 December. The "Raduga" satellite has been put into a near-stationary orbit with the initial parameters as follows: Distance from the earth's surface—35,937 km; period of revolution round the Earth—24 hours three minutes; inclination of orbit—1.3 degrees. The equipment installed on board the satellite is functioning normally. The command and measuring complex is guiding the satellite. The operation of the communications and television equipment of the satellite will be in accordance with a pre-set programme.

'Raduga-1' Launched 27 Dec

LD2812083490 Moscow TASS International Service in Russian 0806 GMT 28 Dec 90

[Text] Moscow, 28 Dec (TASS)—the "Raduga-1" communication satellite was launched in the USSR by the "Proton" rocket-carrier on Thursday [27 December]. The satellite carries multichannel relay equipment providing for the further expansion of telephone and telegraph radiocommunication on USSR territory.

The satellite was placed into an orbit close to the stationary, with the following parameters:

- Distance from the earth's surface—36,535 kilometers;
- period of revolution—24 hours 34 minutes;
- orbital inclination—1.4 degrees.

The satellite equipment is functioning normally.

Murmansk-Norway Direct Phone Link Commissioned

LD2712102290 Moscow Domestic Service in Russian 0900 GMT 27 Dec 90

[Text] Murmansk inhabitants can now contact any subscriber in Norway, by-passing Moscow or Leningrad telephone operators: A direct telephone and facsimile line is now operating between this transpolar town and administrative centers in Norway. This is the second direct link connecting northern territories of the Soviet Union and Scandinavian countries. The first, with Finland, was commissioned at the beginning of the year.

The day is not far off when Murmansk inhabitants will be able to phone directly to Sweden, where communications engineers have announced plans to establish a direct telephone link.

Central Caucasus TV Transmitter Commissioned

LD2712113290 Moscow Domestic Service in Russian 1000 GMT 27 Dec 90

[Text] The inhabitants of the distant settlements in the Digora gorge will receive color Central Television programs on New Year's eve. The new powerful automatic relay transmitter assembled by the communication workers of North Ossetiya in the mountains of the Central Caucasus was put into operation today.

Joint Stock Television Begins Operating in Omsk

LD1612181290 Moscow Domestic Service in Russian 1600 GMT 16 Dec 90

[Text] A joint-stock television company was on air for the first time in Omsk today. Inhabitants of a major microdistrict, which is situated on the left bank of the Irtysh, will be able to see seven hours of television. Apart from a local news bulletin, there will be speeches by leading specialists, by the chairmen of the oblast and town soviets, and interviews with people from the area who have taken part in the extraordinary Russian Congress of People's Deputies. In addition to this, subscribers to cable television—and there are already 4,000 of them—are to be offered feature films and musical and light entertainment programs.

Kazakhstan TV To Begin Satellite Transmissions

LD2912121290 Moscow TASS in English 1145 GMT 29 Dec 90

[Text] Alma-Ata December 29 TASS—The new transmitting equipment installed in Soviet Kazakhstan and a communication satellite leased by the republican government from the USSR Communications Ministry will enable millions of people in the Soviet Union and other countries to watch Kazakh television programmes in the new year. The republican satellite television programme is called Zharyk (light).

Kazakh Prime Minister Uzakbai Karamanov told TASS that the programme would be beamed to every part of Kazakhstan and considerable territories in Russia, Mongolia and China where numerous ethnic Kazakhs live.

Independent Radio Station Begins Broadcasts in Chita

OW1912103290 Moscow Television Service in Russian 1900 GMT 13 Dec 90

[From the "120 Minutes" program]

[Text] It does not surprise anyone in developed countries that there are dozens of radio and television stations on the air. The same thing is happening gradually to us. New stations are beginning to compete with those to which we have become accustomed. The call sign of a new radio program on the air in the Baykal area immediately attracted listeners' attention. [Video shows male and female announcers at microphones]

[Male announcer] So En Ka, the youth editorial office of Chita Radio, and the Aziya commercial information company present...

[Reporter Bardo] As you may have noticed, the new weekly program, with the unusual name So En Ka, begins with this call sign. This abbreviation is deciphered simply as the Joint Independent Radio Channel [Sovmestnyi Nezavisimyi Radio Kanal]. You will agree that for a state organization, such as the USSR Gosteleradio [State Committee for Television and Radio Broadcasting], the words independent and joint sound unfamiliar, but nevertheless this is what it says. The Aziya commercial information company, a small enterprise formed by the youth incentives fund of the Obispolkom [oblast soviet executive committee], became cramped within the existing framework and began actively seeking a business partner. It was by no coincidence that the youth editorial office of Chita Radio became that partner. The democratic position of journalists, freedom of views and expression, responsibility in evaluating events, fully suits the company's management. [Video shows operator at console, announcers at microphones, editorial workers in discussion, studio equipment; Bardo interviewing Aziya company director V. Kochetov]

[Begin Kochetov video recording] I note two positive aspects in our partnership. First, in our remote region our radio channel helps saturate the market with information, new reports, new facts, and various events taking place in the country and in the oblast, all unusual and bright information.

Second, here at the State Radio House, we have the opportunity to freely—maybe not quite independently—but freely associate and broadcast. The chief editor now is probably the Law on the Press. That is all. [end recording] [Video cuts to show operator's console, announcers, editorial conference]

[Bardo] The scope of the joint radio channel's coverage is broad. Political, economic, and cultural information, specialists' commentaries, and plenty of music. But the main thing is... [Video cuts to interview with chief editor Shcherbakova]

[Begin Shcherbakova video recording] ...first of all the education of a new generation of entrepreneurs and businessmen. I do not know how it is in other parts of the country, but in my opinion, our youth's interest in this new activity is still very low. There is another goal, that of providing first of all specific and realistic assistance to our new, young businessmen. [end recording]

New Leningrad TV Company To Begin Transmission

LD3012204490 Moscow Domestic Service in Russian
1900 GMT 30 Dec 90

[Text] A new Leningrad Television company, TS1, goes on the air after midnight today. The Oblast Soviet of

People's Deputies has become its boss. The television company will operate twice weekly on the channel which carries the broadcasts of Leningrad Television. The collective has set itself the task of covering the problems of the spiritual and moral rebirth of the individual, of the village dweller in the first instance, and the economic and cultural links between the Leningrad region and other regions of the country and world. The processes of creating a free economic zone and ecological issues will be covered, and nondocumentary and documentary films will be shown.

Odessa Commercial Television Channel Opens

LD1812182790 Kiev International Service in Ukrainian
0000 GMT 18 Dec 90

[Text] A commercial advertising video channel has opened in Odessa. This is the first attempt to create an independent television network in the Ukraine. The channel is on the air every Monday following Ukrainian Television programs. It lasts one hour, and sometimes even longer. It is prepared by professional journalists, producers, cameramen, and young people who are attracted by clips, freestyle, real accidents, rock music, and so on. [sentence as heard]

Odessa Region to Receive CNN Via Satellite

LD2712112290 Kiev International Service in English
0000 GMT 27 Dec 90

[Text] An autonomous television channel will begin functioning in Izmail, Odessa region of Ukraine, on the eve of the new year. The television channel will use satellite communication; for example, it will help receive world news of the CNN television network. The U.S. marketing concept [as heard] has offered 150 feature films for demonstration in Izmail, Kiliya, Reni and Bolgrad regions.

Belorussian Town of Mozyr Gets Cable Television

LD2112034290 Moscow Domestic Service in Russian
2330 GMT 20 Dec 90

[Text] Cable television is becoming available in the Belorussian town of Mozyr. The inhabitants of one residential district are already able to watch programs screened on a commercial channel. All the work involved in its introduction was handled by the Mozyr Cable Works. The enterprise paid hard currency for new Japanese equipment and equipped its own television studio where the television programs are made. It also has equipment for the reception and relay of satellite television. This makes it possible to watch programs beamed from foreign countries. Technical documentation for the development of cable television systems throughout the town is now being worked on. A local program, called "Mozyr News", will go on the air in due course.

REGIONAL AFFAIRS

D2-Mac on Shaky Ground as European HDTV Standard

91WS0043X Frankfurt/Main FRANKFURTER ZEITUNG/BLICK DURCH DIE WIRTSCHAFT
in German 30 Oct 90 p 8

[Article: "Without Attractive Program Offerings D2-Mac Cannot Become Television Standard: Federal Government Wants To Hurry Along Its Introduction With a Joint Declaration of Intent From the Participants"]

[Text] Frankfurt, 29 Oct—To date, several hundred million German marks [DM] have been invested in the development of high definition television; however, success has not been achieved yet. European TV manufacturers are noticeably nervous. In the opinion of those knowledgeable about the sector, the improvements promised through the introduction of the D2-Mac TV standard are not easy to recognize when compared to the PAL [programmable array logic] system. Often it is not obvious that the digital sound is actually better because the audio components of existing TV sets (particularly the older ones) are in some cases not advanced enough and also the sound track of many programs is quite mediocre.

On the other hand, D2-Mac represents an intermediate step toward HDTV. In 1991, when the first TV receivers with the wide picture tube in 16 x 9 format become available, they would already be capable of showing programs that fill the screen—provided the broadcasting companies and the private broadcasters are then transmitting in D2-Mac. In any case, to date, D2-Mac TV is playing via TV Sat 2 with the public virtually excluded.

There, there are only four channels (1 Plus, 3Sat, Sat 1, and RTL plus) which can be seen via conventional ground transmitters or on cable in the usual PAL. In contrast, direct reception via TV Sat 2 requires an expensive satellite system and a receiver suitable for this standard. The viewer can obtain these two items only by investing approximately DM2,000. For the viewer, that means high cost with limited use. And the expensive satellite which cost approximately a half billion Deutsche marks is not being adequately utilized.

Federal Post and Telecommunications Minister Dr. Christian Schwarz-Schilling succeeded in persuading TV manufacturers, broadcasting companies, the two largest private telecasters, and the German Post and Telecommunications Ministry to sign a declaration of intent which is supposed to save the D2-Mac standard. According to it, the broadcasting companies are to present the first and second channels on TV Sat 2 and they are obligated to broadcast some programs in the 16 x 9 format starting at the time of the International Broadcast Exhibition in 1991, and, for this, to conclude four-year exploitation contracts for two channels on the TV Sat and also to transmit digital sound radio (DSR) over a third channel.

The TV manufacturers are supposed to offer reasonably priced D2-Mac receivers or even modems for older sets. According to Schwarz-Schilling, they also must be involved in transponder rentals, which would be an absolutely new development. The German Federal Post and Telecommunications Ministry will likewise contribute to the costs of TV Sat 2 and feed more programs into the broadband cable using the D2-Mac standard, as well as the French channels transmitted with that standard which now run on the satellites TDF 1 and 2.

The Post Ministry, for its part, is obligated to make arrangements through negotiations with the German Laender so that the broadcasting of the TV programs mentioned will be less expensive. However, the old version of the agreement between the Laender and the national government concerning the use of the TV Sat still prevents that.

And, the Union of Broadcasting Companies (ARD) has reservations: Retrofitting studios for the new picture format and the new form of modulation are considered too expensive, and satellite broadcasting would lead to horrendous additional payments for film broadcast rights, since the nine Laender would then be involved.

However, if no attractive programs can be received from TV Sat 2, the intermediate step D2-Mac would be "dead" because of the situation and, therefore, all of the effort expended thus far for technical introduction of this standard would have been wasted, argue industry representatives. Cornelis Bossers (Philips) and Dieter Kunkel (Thomson) stress that much has been invested, that there will soon be both conventional PAL color receivers in the current 4 x 3 format with integrated D2-Mac components for an added cost of barely DM300 more and built-in decoders for the same DM300 or add-on decoders for cable reception for DM699. Beginning early next year, Thomson will offer color sets for direct satellite reception for an added cost of DM649. For this all that is needed is the connection of a small parabolic antenna—which costs approximately DM300.

But, all of this only makes sense if truly attractive programs are broadcast in D2-Mac via TV Sat 2. Whether the first and second channels which are receivable everywhere with the usual quality are to be included in that may remain an open question. Nevertheless, everyone is still committed to pursuing HDTV. Alain Gomez, Thomson CEO, recently announced approval of an additional Fr 3 billion (approximately DM1 billion) for HDTV development.

Europesat Program for Future TV Satellite

91WT0053A Paris LES ECHOS in French
27 Nov 90 p 10

[Article by Blandine Hennion: "Future Direct TV Broadcasting System Will Be European"]

[Text] The second generation of direct television broadcasting satellites, destined to replace TDF1-TDF2 in

1996, will be an eight-country system known as "Europesat." It will be managed by Eutelsat, which as a stopgap measure may launch at least one satellite in as little as 28 months.

By refusing to augment TDF1-TDF2 with the help of the French telecommunications satellite Telecom 2, Paul Quiles has delayed by two years the upgrading of the French direct television broadcasting system, which can carry only eight of 12 channels. The decision may make continuity of service impossible for the six operators of the TDF1-TDF2 program packages (if more tubes blow out in the coming months). But it was a resolutely European choice. Faithful to his commitment to Franco-German cooperation in the field of HDTV [high definition television], including satellite and cable support, the minister for posts, telecommunications, and space announced yesterday that the second generation of direct broadcast satellites would be European.

The international body Eutelsat thus received a favorable response from France, Germany, and six other countries to its bid for participation in the Europesat project. In 1996 these new satellites, with 12 channels each on 120-watt power, will assume the same orbital station of 19 degrees west and take the place of the current TDF1-TDF2's, which have only five channels each on 230 watts of power. On Friday, Eutelsat will kick off this billion-ECU [European Currency Units] program, for which it has received requests for 37 to 53 transponders—France having reserved 12 to 15, and Germany, another pillar of the system, 15 to 18.

Europesat, which is to have 36 operational channels with three satellites, will entail international negotiations with the eight countries concerned, each of which was given five direct broadcast channels under the 1977 Geneva plan. Some countries will waive their quota, ceding frequencies to their French and German neighbors. The system will be economically advantageous, since the operator will pay Fr40 to 50 million for each secured channel per year, compared to the initial 75 million for a secured TDF1 channel.

The Clock Is Ticking

Paul Quiles, who alongside Catherine Tasca, commented yesterday on the conclusions of the Eymery report (ECHO of 21 November), thus rejecting a Franco-French solution that involved moving the TDF1-TDF2 to 7 degrees west, an orbital position close to Telecom 2, France Telecom's future telecommunications satellite, the first of which is to be launched next autumn. According to Thomson officials, "that solution, which would have enabled us to augment TDF1-TDF2 more rapidly, and would have breached our cooperation agreements with Germany on the D2 MAC, and the intermediate HDTV standard, because Bundespost Telekom is committed to adapting its cable networks to the European standard. Germany has 7 million homes connected to cable."

Industry has also had a voice in this complex problem, as the posts and telecommunications minister noted:

"This issue is complex because our approach must be viable both commercially and technically. A number of important variables must be factored in, from viewer expectations, to the needs of operators, not to mention industrial capabilities. In addition, we must take the international environment into account. One thing is sure, the time remaining to us for action is limited."

The operators of TDF1-TDF2 will not necessarily have to wait until 1996 to be able to engage in commercially satisfactory direct broadcasting. The government has decided to entrust Eutelsat with the task of proposing an interim solution. The latter has undertaken to order a "stop-gap" satellite configured like Europesat rather than TDF1.

A lead time of 28 months is needed. Alcatel Espace in association with Aerospatiale has already offered to build the satellite, which will cost Fr1.2 billion to orbit. Requiring antennas 40 percent bigger than those needed to pick up TDF1, the satellite will also come to the rescue of TVSAT, TDF1's German counterpart. This solution will cost the operator Fr75 million per year per channel in rental fees, the same as TDF1. But operators must make firm commitments before the government gives a green light for the "gap filler." It is a three year gamble that not everyone is prepared to make.

Video-Telephone Project To Challenge Japanese

91WP0053C Paris *LE FIGARO (LE FIG-ECO supplement)* in French 22 Nov 90 p I

[Article by Yann Le Gales: "Quiles Plugs In to Visiophone"]

[Text] Paul Quiles, minister for posts, telecommunications, and space, presented to the council of ministers yesterday the action programs launched by France Telecom in the field of telecommunications terminals (telecopiers, European digital car telephones, etc.). Among other things, the minister officially launched the "Visiophone" or video-telephone program. Still kept under wraps at the laboratories of CNET [National Technical Research Center], Matra, Alcatel, and SAT, Visiophone will become a reality for these concerns and for the general public starting in 1995. The price will vary from Fr5,000-10,000.

The days of the telephone booth and Minitel are numbered. Telecommunications terminals are going to be the object of serious industrial competition over the next few years. The European digital car telephone, the telecopier, and the Pointel portable pocket telephone represent markets worth tens of billions of francs. A mass market is developing for terminals, similar to the market that developed for video cassette recorders and televisions.

Industrial rivalry will be all the more heated since the Japanese are prepared to seize this opportunity to force

European manufacturers to beat a retreat. They are already the world leaders in telecopying. They are mastering essential technologies such as components and liquid-crystal screens. The opening of the European market no longer protects manufacturers in the Old Continent. Finally, new challengers such as Thomson are looking for a way to break into this mushrooming market.

SGS-Thomson Accepted

Visiophone is a symbol of the new reality. The program will be the object of a battle royal over the next three years. It is necessarily going to be European. It demands the mastery of sophisticated technology in components and flat screens. French manufacturers will no longer be able to use their domestic market to score points for export sales. "New relations will have to be established between the state, the public utility France Telecom, and the manufacturers. France Telecom, for its part, will continue to be involved in strengthening the economy," said Paul Quiles. The former DGT [General Directorate of Telecommunications] will engage in three kinds of activities to that end: research, takeovers, and an international strategy.

Before the end of this year, France Telecom—which next year is going to invest Fr50-100 million in Visiophone—will pick two manufacturers to develop the components. Five major industrial groups responded to last spring's invitation to submit bids. The list includes the Franco-Italian SGS-Thomson, which will be selected, and Siemens. Later on, the former DGT will have to choose suppliers of flat screens. In that field, the European manufacturers that are capable of providing the kind of specialized components used in Visiophone are starting off far behind the Japanese. Thus, European cooperation is imperative.

The first steps have already been taken. Siemens, Matra, Alcatel, and Philips are collaborating in the Jessi program. European utilities like France Telecom have established common standards. They have agreed to pool their research capabilities in Eurescom. They are working to interface their networks.

But Paul Quiles, who met the day before yesterday with Ian Timmer, president of Philips, wants to go even further. "The major European groups—Philips, Siemens, and Thomson—are pondering the best way to respond to the Japanese. Personally, I hope the European Commission takes the necessity of European cooperation into account. If not, the respective governments will have to ensure the Commission gets organized to meet this kind of competition."

Eureka Audiovisual Plans Announced

91WT0053B Paris *LES ECHOS* in French
27 Nov 90 p 43

[Article by Nicole Vulser: "Establishment of European Audiovisual Center"]

[Text] Eureka's audiovisual coordinating committee is expected tomorrow to give an official green light for the European Audiovisual Center.

More than a year after the European audiovisual conference and the adoption by some thirty countries of the joint declaration in favor of establishing a Eureka Audiovisual based on existing technology, the cultural and industrial gamble seems to be headed for success. Spurred by the serious shortage of audiovisual programs in Europe and the virtual nonexistence of exports at a time when American and Japanese programs are abundant, some thirty European countries decided to dynamize the market and establish partnership networks. Among the five Herculean tasks assigned to Eureka are the cultivation of a more transparent audiovisual market, the launching of specific cooperation projects, wider distribution of European programs, more extensive distribution of programs within Europe, and promotion of European technologies.

"Eureka effectively got under way in mid-January. Since June, after setting up a staff in Brussels and obtaining an operating budget (1.3 million ECU [European Currency Units]) this year, we have given the go-ahead on several projects," explained Patrick Olivier, director of the Eureka Audiovisual secretariat. "Tomorrow, the coordinating committee is expected to approve the European Audiovisual Center. This is a necessary instrument for achieving market transparency, since standardized statistics for the various European countries do not yet exist. This small network clearinghouse based in Strasbourg, near the Council of Europe, will standardize the economic, juridical, and fiscal data in domains as diverse as the various interested parties, and will produce a catalog of European programs."

Five Projects

Five projects, supported by at least three countries, are expected to get the Eureka designation tomorrow. The five projects are: The European Production Group (GEP), bringing together eight broadcasters that have established a script-writing development fund; TV Tel, a videotext educational programming system; GPE, a group of European producers who hope to make four or five programs of Europe-wide interest over the next

three years; the coproduction and dissemination of videodisks about Russian culture; and Amaya Distribution, which has the Cousteau broadcast catalog and a 10 percent interest in production through a distributor on account.

Eureka Audiovisual hopes in the near future to coordinate with GIE Vision 1250 on equipment loans needed for European HDTV [high definition television] production. Other priorities are: assistance to new image technologies, promotion of the dubbing and subtitling necessary for better circulation of programs in Europe, and establishing standards for European productions.

Turkey, France Sign Commercial Satellite Agreement

TA2212101590 Ankara ANATOLIA in English
0950 GMT 22 Dec 90

[Text] Ankara (A.A.)—Turkey signed an agreement on Friday with Aerospatiale of France for the production of Turkey's first commercial satellite.

A statement from Turkey's Post, Telegraph and Telecommunications Company (PTT) said Aerospatiale had proposed the best offer.

According to the agreement the Turksat project which is targeted to be finished in 1993 will cost 291 million U.S. dollars

Aerospatiale and British Aerospace had been in fierce contention for the project.

The PTT was to have signed the contract with Aerospatiale in September but postponed the ceremony to November 26. It then cancelled again and demanded re-bids with technical changes.

CANADA

EG GATT Proposal Viewed as Affecting Two BCE Units

91WT0060 Toronto THE GLOBE AND MAIL
in English 27 Nov 90 pp B1, B2

[Article by Lawrence Surtees, Telecommunications Reporter]

[Text] The European Community wants Bell Canada and Northern Telecom Ltd. broken up.

That would be the effect of the latest proposal tabled by the EC at the so-called Uruguay Round of talks on international trade, said Michael Murphy, director-general of government relations and GATT-watcher at Bell Canada.

"Their proposal is deceptive," said Germain Denis, Canada's chief negotiator and assistant deputy minister for multilateral trade negotiations at the Department of External Affairs.

Although the EC does not specifically name any offending countries, the broad provision on procurement "is aimed at preventing any preference being granted to a company by any government regulation," Mr Denis said in an interview.

Most global telecommunications equipment makers have preferential supply agreements with domestic telephone companies.

Northern Telecom, which will become the world's third-largest telecommunications equipment maker after it completes the acquisition of STC PLC of Britain, is no exception.

The Mississauga-based company has a fifty-year-old supply agreement with Bell Canada that was approved by Bell's federal regulator, the Canadian Radio-Television and Telecommunications Commission.

Both companies are units of Montreal-based BCE Inc., one of Canada's largest corporations. Combined, Bell and Northern employ more than 100,000 people and had revenue of more than \$15-billion (Canadian) last year.

The supply agreement, under which Northern Telecom grants a price discount to Bell, is the underpinning of the integration of the two companies. Their relationship was upheld in 1983 after a 17-year inquiry by the federal government to break up the two companies.

The EC proposal says those kinds of deals harm international trade and it wants negotiators to outlaw such arrangements.

"They ignore the fact that most European telephone companies are state-owned and have closed markets," Mr Murphy said.

The EC proposal was submitted last week for consideration by ministers from 100 countries who will attempt to rewrite international trade rules when they begin a week of negotiations in Brussels on Sunday.

Those meetings have been billed as a last-ditch attempt in the four-year-old round to negotiate the most sweeping reforms to the General Agreement on Tariffs and Trade (GATT) since the Second World War.

Telecommunications figures prominently in those talks.

Representatives are attempting to negotiate a telecommunications agreement that is one of several proposed appendices to a radical document, called the General Agreement on Trade in Services (GATS). The GATS agreement is a companion to the over-all GATT accord.

But telecommunications services is just one of 15 areas that the army of diplomats from North America and Europe, the two major trading blocs, are squabbling over. And as the EC proposal on procurement shows, there is significant overlap between proposals in the umbrella GATS accord and the telecommunications appendix, Mr Denis said.

Coincidentally, the task of finding an international consensus on the appendix on telecommunications services rests with a Canadian official.

Robert Tritt, director of trade policy at the federal Department of Communications, is chairman of the GATT sub-group on telecommunications that hopes to set new rules governing access to the fastest-growing segment of a global business worth almost \$400-billion (US) a year.

GATT does not currently apply to trade in services. A US proposal to reach such a pact was scuttled in 1982.

The launch of global messaging services in Canada, Japan and Britain earlier this year by US telecommunications giant American Telephone and Telegraph Co. of New York underscores the growing trade in telecommunications network services.

Spending on services now outstrips equipment purchases by almost four to one.

Users spent \$310-billion on services in 1989, compared with \$80-billion on equipment, according to estimates from Northern Business Information Ltd. of New York.

But the EC's procurement proposal is only the latest monkey wrench that members of both North American and European delegations have lobbed at each other on the eve of the historic talks.

To counter those state-owned monopolies, the United States wants to exempt its telecommunications service market from the most-favored-nation principle enshrined in the GATS accord.

That principle would require any signatory to extend an advantage bestowed on one trading partner to all other GATT signatories. Faced with pressure from AT&T, the United States wants to negotiate access to markets bilaterally outside of GATT.

In maneuvering between the broad EC proposal and the status quo, Mr Tritt is advocating a Canadian compromise.

Officials in Ottawa believe the Canada-US free-trade agreement (FTA) could serve as a model for the proposed telecommunications appendix to the GATS agreement.

Canadian negotiators are seeking an outcome similar to the FTA's provisions on services, says an External Affairs briefing report prepared last August.

The FTA enshrines "national," or reciprocal, treatment, which means each country will treat a company from another country the way it treats a domestic company, which could satisfy US concerns. The FTA also includes rules on procurement, which could meet Europe's concerns.

But telephone companies are worried that the GATS telecommunications appendix could force their governments to impose deregulation and competition in their monopoly markets.

A detailed agreement on regulating trade in telecommunications will also have to reach an international consensus on what services should be included in the agreement, as well as reconcile the varying degree of competition in place throughout the world.

"Canada must retain complete authority and flexibility to determine the structure of domestic markets," John Farrell, president of phone company consortium Telecom Canada, told International Trade Minister John Crosbie in a letter last month.

Despite the hurdles, some observers argue there is too much at stake for failure this time.

Mr Murphy believes the process won't end in Brussels.

It would be ironic, he said, if GATT fails on telecommunications—the oldest international organization in existence, the Geneva-based International Telecommunications Union has served as a model of global cooperation for 125 years.

Consortium To Build Armed Forces New Communication System

91WT0059 Ottawa *THE OTTAWA CITIZEN*
in English 31 Oct 90 p B1

[Article by Dominique Lacasse]

[Text] Nepean-based Computing Devices Co. has won a bid to supply the Canadian Armed Forces with a \$1-billion communications system to replace antiquated, 1950s' hardware.

The massive project will take 10 years to complete and create hundreds of jobs from coast to coast, the bulk of them going to Alberta but at least 100 to the Ottawa area.

Computing Devices, a division of Control Data Canada Ltd., will lead an international consortium of 10 companies that will design and manufacture the new system nicknamed Iris (after the Greek goddess of the rainbow and messenger to the gods). The new system will provide everything from hand-held cellular phones and fax machines to long-range satellite communication, all with built-in security features to prevent interception.

The award was announced at an Ottawa press conference Tuesday by Defence Minister Bill McKnight and Supply and Services Minister Paul Dick.

They said details of the contract are still to be completed before Treasury Board approval is sought for the contract award.

"The communications system now in use by our army is, quite simply, aging and ineffective," McKnight said. "In this information and communications age, the army still has 1950s' technology."

"The current system is difficult to operate and maintain and is vulnerable to jamming, which could render it useless in a hostile environment."

Computing Devices had been preparing for the bid since 1982 and spent \$5-million on its massive proposal. Two trucks delivered the 120,000-page package to the government in June.

"We put a lot of effort into our proposal," said David Scott, executive vice-president of Computing Devices's Communication Systems Division.

"Everybody likes to see more jobs and that's what we're getting. We're quite delighted about it."

The company is estimating that nearly 8,850 person-years of employment will be created over the 10-year term of the project. (A person-year is work for one person for one year.)

Of the jobs created in Ontario, about half will go to the Ottawa area, including about 100 to Computing Devices's Bells Corners site where it employs 1,200 people.

The radios, designed in Britain, will be manufactured under licence by Computing Devices in a \$100-million plant to be built in Calgary, creating 350 jobs.

FRANCE

France Telecom, International Telecom Japan Sign Accord

91WT0039A Paris AFP SCIENCES in French
28 Oct 90 p 21

[Article: "France Telecom-International Telecom Japan Agreement"]

[Text] Paris—On 12 October, in Paris, the chief executive officer of France Telecom, Mr Marcel Roulet, and the president of International Telecom Japan (ITJ), Mr Noboru Takahashi, signed a cooperation agreement aimed essentially at developing relations between the two partners.

This framework agreement, which remains to be defined, complements the agreement signed in 1989 and dealing with fax (fax-inter) and telephone communications between the two countries. According to France Telecom, it will cover marketing, the operation of new services and, more broadly, other international telecommunications sectors. One of these is telephone, as telephone traffic is becoming increasingly international.

France Telecom holds a 2-percent interest in ITJ, which was created in 1986 following the privatization of the national operator Nippon Telegraph and Telephone (NTT).

Since the opening of international switched telephone service with France, in November 1989, the traffic between ITJ and France Telecom has experienced sustained growth and, according to France Telecom, ITJ controls over 20 percent of the Japanese telephone market with France.

Post, Telecommunications Budget Approved

91WT0039B Paris LE MONDE in French
14 Nov 90 p 27

[Article by Pierre Servent: "At the National Assembly, Mr Quiles Has the New Post and Telecommunications Budget Approved"]

[Text] On Monday, 12 November, the deputies passed the budget bill of the Ministry of Post, Telecommunications and Space (PTE), amounting to Fr601.4 billion. In accordance with the law of 2 July 1990, Mr Quiles's ministry no longer includes the operations of the Post Office and France Telecom; on 1 January 1991, both will become legal entities governed by public law and enjoying financial autonomy.

At a time of lean kine for the government (8 out of 20 budgets were approved), Mr Quiles's budget bill was a great success, with 286 votes for (the Socialists, Mr Pierre de Benouville (RPR) and 13 independents) and 248 against (RPR, UDF, PCF, 6 independents). The centrist deputies abstained, as did 2 RPR deputies (Messrs Gorse and de Rocca-Serra) and 2 UDF deputies (Messrs Pelchat and Jose Rossi).

"For the first time since 1923, there is no appended PTT [Post, Telegraph and Telecommunications] budget. Meanwhile, the country has turned over a new administrative leaf, and the two public operators—The Post Office and France Telecom—have been given management autonomy. Starting 1 January 1991, they will be on their own, and I made sure that national elected bodies will have the means to check that the operators actually use their technical, economic and social achievements to serve the country and the French people, all the French people," the PTE minister explained in order to put this budget of a new type in the proper perspective. On the difficult question of the Post Office making loans (a subject that had been the subject of some debate in the Assembly and in the Senate during the spring session), Mr Quiles indicated that the government will actually submit a report to Parliament on the question.

In fact, the minister wishes to reexamine the question in a climate more serene than the one that prevailed during the debate on the planned separation of the Post Office and France Telecom. The government, therefore, just entrusted Mr Yves Ullmo, senior adviser at the State Audit Office and general secretary of the National

Council on Credit, with just such a mission. "The report will also evaluate the impact that granting the Post Office access to lending activities will have on the French financial system," the minister explained, adding that the study will be submitted to Parliament in the next few months and will be discussed during the spring session.

During the debate, Mr Quiles received far more praise than criticism. For instance, a centrist deputy, Mr Jean-Pierre Foucher (Hauts-de-Seine), expressed his appreciation for the efforts made to achieve a consensus on the reform. "We are pleased that the Higher Commission on Public Service of the Ministry of Post and Telecommunications, which includes two centrist deputies, was implemented as scheduled," he said. Mr Daniel Le Meur (PCF, Aisne), whose group had been the only one to vote against the law of 2 July, denounced Mr Quiles's policy: "Your policy hands over the Post and Telecommunications public service to the imperatives of large corporations. (...) In order hand over control of the public service to the private sector, your law has made it possible to eliminate the 'administrative shackles' which you mentioned on 27 October 1989: the time seems to have come for deregulation made in the United States..."

GERMANY

Satellite Channel Begins Teletext Service

*LD1912121490 Hamburg DPA in German 1035 GMT
19 Dec 90*

[Excerpts] Zurich (DPA)—The German-language satellite channel 3Sat is from today offering its own teletext. The two programs, called 3Sat-Text and 3Sat-Textvision, are specifically geared to the information needs of the German-speaking audience and will be produced by Schweizerische Teletext AG in Biel. Dieter Stolte, the manager of ZDF, announced this in Zurich today. On 190 pages initially, the broadcasts will include a news program as well as excerpts from the teletext services of the four 3Sat stations—ZDF, the Austrian ORF, the Swiss SRG, and DFF, the station of the former GDR that has been associated with 3Sat since April 1990. [passage omitted]

Deutschlandfunk Complains of 'Frequency Piracy' by SWF

*LD1912113790 Berlin ADN In German 0953 GMT
19 Dec 90*

[Text] Bonn (ADN)—An open dispute broke out on Wednesday between Deutschlandfunk and Suedwestfunk (SWF) on the distribution of broadcasting frequencies. The director of Deutschlandfunk, Edmund Gruber, spoke in a press statement published in Cologne of "illegal action by Suedwestfunk" and of "frequency piracy".

According to Gruber, Suedwestfunk, the land broadcasting station based in Baden-Baden, want to use two

UKW frequencies "which rightfully belong to Deutschlandfunk" for its own fourth radio service. Suedwestfunk wants to create a fait accompli "before the prime minister of the laender meet tomorrow and the day after for their last annual conference to talk about broadcasting issues, among other matters".

Gruber announced "appropriate legal measures" against the action by Suedwestfunk. He recalled that the ARD [association of public broadcasting institutions] published a report calling for the abolition of Deutschlandfunk and saying that it would permit a "joint institution" only if the disbandment of the Cologne station is not possible. The behavior of Suedwestfunk, Gruber says, gives a "foretaste of the ARD's intention of continuing Deutschlandfunk as a radio station without any status in law within a joint institution".

East German Television Ends Broadcasting Operations

LD1512222190 Berlin Deutschlandsender-Kultur Network in German 1900 GMT 15 Dec 90

[Excerpt] Just a few minutes ago, East German television [Deutscher Fernsehfunk—DFF] began transmitting on its first channel the service of the West German television, ARD. It thus ended its 38-year broadcasting activity on that frequency. At the same time, the color television norm was changed from Secam to PAL. On the DFF second channel the new laender chain [Laender Kette—East German regional chain] has been broadcasting since this morning. ARD Chairman Hartwig Kelm spoke of the historic day that has brought the start of a shared broadcasting future. He emphasized that DFF remains responsible for the channel until Land broadcasting bodies are set up. [passage omitted]

ARD Programs To Be Aired in Whole Germany From 15 Dec

AU1412104190 Berlin BERLINER ZEITUNG in German 12 Dec 90 p 2

[Ralph Kotsch report: "ARD To Air Its Programs in the Whole of Germany as of Saturday"—times cited are local]

[Text] On Saturday [15 December], the programs of the East German DFF television network will cease to exist in their present form. A new program called "DFF Laenderkette" [regional programs] will be formed out of DFF1 and DFF2, which will be aired beginning Saturday at 0710 on the frequencies of DFF2.

The first German television channel ARD will transmit its programs on the frequencies of DFF1. The hookup will be carried out at 1958 on Saturday. Until that time the DFF1 will present a special farewell program for its spectators.

The DFF will contribute numerous broadcasts to the ARD main program. After unsuccessful talks between

ARD and DFF in the past, progress has been achieved in the past few days—as was learned from DFF circles. As of December it will be possible to receive DFF productions from all spheres (from the entertainment department the “Motley Pot,” for example) via ARD in the whole of Germany. From 1725-1958 the ARD will carry local programs. During this period, local programs will be aired by the regional stations of Mecklenburg-Western Pomerania, Brandenburg, Saxony-Anhalt, Saxony, and Thuringia. A special arrangement has been worked out for Berlin. On the frequency on which ARD programs used to be broadcast in the past, Berlin inhabitants will continue to be able to watch the regional programs of the SFB [Free Berlin Station]. On the frequency on which DFF1 used to transmit, and which will now also be used by ARD, the regional program of the Brandenburg station will be aired.

There is good news for all fans of the sandman. This program will be continue to be aired twice every day—at 1820 in all regional programs of the new laender, and at 1850 within the DFF Laenderkette program.

In Berlin it will in the future be possible to receive ARD programs on two frequencies with an antenna, and ZDF [Second German Television], the DFF Laenderkette, Sat1 and N3 on one frequency each. Thus, it will be possible to receive the breakfast program of RIAS television, which was taken over by ARD and ZDF a few weeks ago, on four frequencies. According to Helmut Haunreiter, who is responsible for technical aspects in

the staff of television representative Rudolf Muehlfen-
zel, this arrangement will not last very long. Solutions are
being sought under which programs of private stations
can be offered instead of RIAS-TV breakfast programs
on four frequencies.

Since the establishment of the ZDF hookup on 2 December on some frequencies that had not been used until that point, reception problems have been observed in parts of Saxony and Mecklenburg- Western Pomerania. Helmut Haunreiter told BERLINER ZEITUNG yesterday that, together with the Federal Postal Admin-
istration, solutions are being sought concerning the establishment of additional stations so that the ZDF can also reach areas that have so far not been able to receive ZDF programs.

SPAIN

Deputies Approve Municipal Radio Stations Law

*LD1412061990 Madrid Domestic Service in Spanish
2200 GMT 13 Dec 90*

[Excerpt] There will be municipal radio stations, and they will be able to finance their wages out of advertising. The congress of Deputies today approved the draft laws regulating the creation of municipal radio stations and including party political election broadcasts on them. [passage omitted]

**Undersea Communication Cable Begins Operating
24 Dec**

TA2412092490 Jerusalem *THE JERUSALEM POST*
in English 24 Dec 90 p 7

[Report by Judy Siegel]

[Text] Bezeq's third undersea telecommunications cable, which can accommodate up to 19,000 simultaneous calls, is to begin operation today—a few days before the

deadline set by the international consortium that set it down on the Mediterranean seabed.

The easternmost end of the 2,890-kilometer cable was laid this past summer off the Tel Aviv coast, and connects up with Turkey, Greece and Italy. It meets other connections extending access to the rest of Europe and to the U.S.

The 11-country consortium has invested \$100 million in the project.

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